

VSC 900 & VSC 900D

TWO INPUT HIGH-RESOLUTION
COMPUTER-TO-VIDEO SCAN CONVERTERS

- Two RGBHV inputs and three simultaneous outputs as composite video, S-video, and component video or RGB video
- Autoscanning up to 1600 x 1200
- Auto-Image™ setup
- Eight horizontal filters and four vertical (flicker) filters
- Genlocking capability
- Chroma attenuation
- Sizing & centering controls
- Zoom control with eight presets
- 60 factory presets and 16 auto memory locations
- Freeze function
- Internal test pattern generator
- IR and RS-232/RS-422 remote control
- Optional SDI digital output



VSC 900D

The Extron VSC 900 and VSC 900D two input high-resolution, computer-to-video scan converters offer a combination of superior processing, an advanced feature set, and value. Innovative technologies incorporated into the scan conversion engine improve video performance and enhance video output for high-end, integrated systems that require a variety of input signal formats.



Extron® Electronics

www.extron.com

DESCRIPTION

The Extron VSC 900 and VSC 900D two input high-resolution, computer-to-video scan converters combine superior processing with an advanced feature set, including both BNC RGB and 15-pin HD inputs with loop-through outputs for easy integration. In addition, the VSC 900D offers an SDI digital output.

The VSC 900 and VSC 900D accept computer images at resolutions up to 1600 x 1200 and output a scan converted signal as composite video, S-video, component video, and/or RGB video. Both models are designed to be integrated into high-end broadcast facilities and other demanding production, training and presentation environments as they offer exceptional output quality, the ability to genlock to an external blackburst signal and optional SDI output. Other applications include videoconferencing, video recording, and viewing images on an NTSC or PAL monitor or other display device.

FEATURES

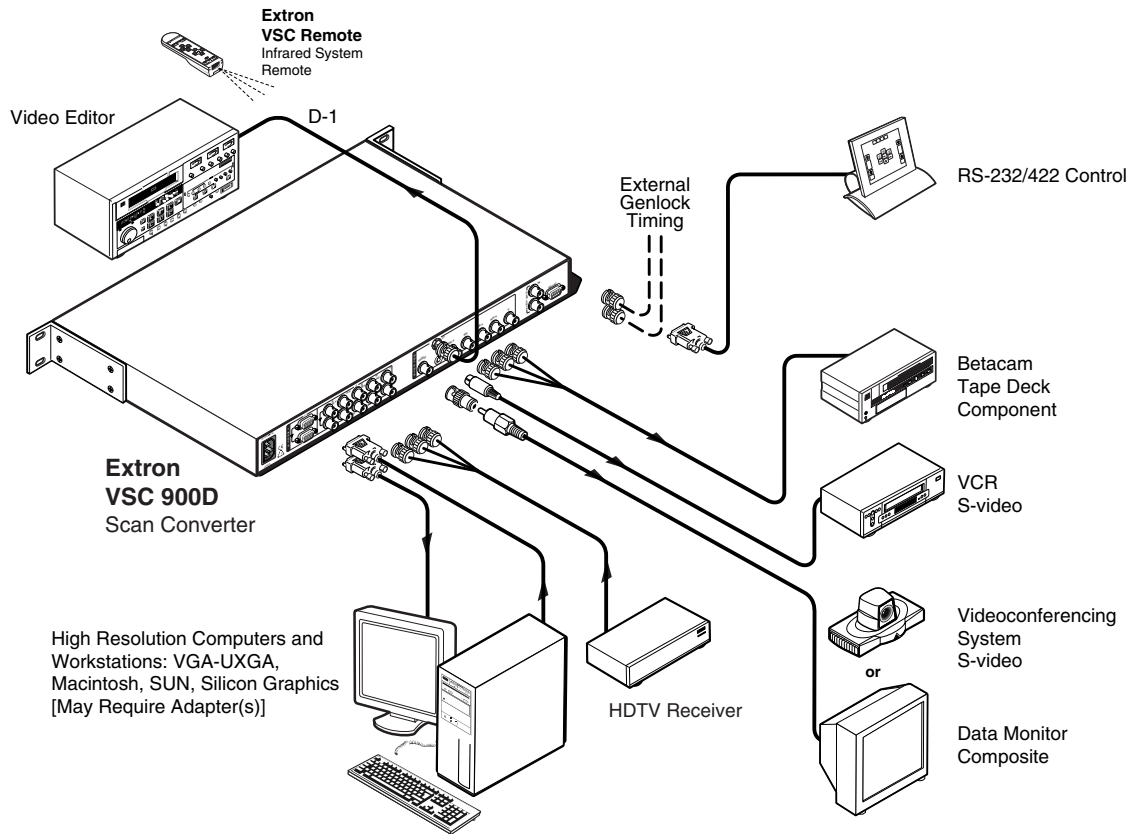
- **Autoscanning** – Automatically recognizes and converts the incoming computer image, up to 1600 x 1200 resolution, 100 kHz horizontal, and 120 Hz vertical scan rates.
 - **Integration-friendly inputs** – Input one is on female BNC connectors, eliminating the need for adapter cables and offering the proven reliability of BNC connections. A second input is offered on a 15-pin HD female VGA connector. Adapters are available for MAC inputs.
 - **Buffered loop-throughs** – Provides for local monitor outputs on both BNC connectors and a 15-pin HD female VGA connector, enabling a signal to be easily monitored or distributed without using a distribution amplifier.
 - **Auto-Image™ setup** – A press of a button automatically adjusts the sizing, centering, and filtering to optimize the output image. This can save an enormous amount of time and effort in fine-tuning displayed images.
 - **Three simultaneous outputs** – NTSC or PAL video is output as RGBHV, RGBS, RGsB, or component video, S-video, and composite video.
 - **Optional SDI output (VSC 900D only)** – A digital 4:2:2 output is available for incorporating digital video devices into environments such as video production studios, non-linear editing suites, staging events, and video broadcast studios.
 - **Chroma attenuation** – Chroma attenuation is an ideal feature for broadcast environments where colors in logos and images must be set at 75% saturation for transmission. The VSC 900 and VSC 900D have the ability to attenuate an input signal down to the correct output level, eliminating the need to recreate the image and/or content.
 - **Input memory presets** – Allow the scan converter to automatically recall up to 16 user presets, 60 factory presets, and eight zoom presets, accessible via RS-232 or the included IR remote. Each memory location stores filter, size, centering, and/or zoom settings for a source that can be instantaneously recalled during a presentation.
 - **High quality zooming and panning** – The VSC 900 models feature variable zoom up to 200% and allow panning across the screen. User-friendly positioning, including centering and sizing, is accessible through the front panel for quick and efficient image setup.
 - **Horizontal filtering** – There are eight horizontal filters selectable through the front panel LCD navigation menus to enhance and stabilize the final scan rate converted video image. Horizontal filtering prevents anti-aliasing or pixel elimination so that less detail is dropped when the television scans from left to right.
- **Vertical (flicker) filtering** – The VSC 900 and 900D have four vertical (flicker) filter settings selectable through the front panel LCD navigation menus. Vertical (flicker) filtering provides line averaging so that before the scan converter eliminates lines in the down conversion process, it fills in missing information. By filling in averaged information, the scan converter helps to maintain vertical detail and eliminate picture flicker.
 - **Freeze button** – The input of the VSC 900 and VSC 900D can be frozen using the freeze button on the front panel or RS-232. This feature allows the scan converter to capture a frame of video to display for an extended period of time, even after the source has been removed.
 - **Genlock** – A necessary feature for broadcast or production environments, genlocking is the process of synchronizing all video devices for the purpose of pixel switching and chroma keying of computer overlays. A specific type of genlocking, known as chroma lock, refers to the synchronization of the sync signals and chroma. This allows the signals to be edited and composed to make a complete segment without any kind of distortion, glitch, or signal irregularity.
 - **Internal test pattern generator** – The VSC 900 and VSC 900D offer four test patterns for quick and easy monitor set-up: Color Bars, 32x32 crosshatch, 4x4 crosshatch, and gray scale.
 - **RS-232/RS-422 remote control** – A rear panel RS-232/RS-422 control port provides easy operation of the VSC 900 scan converters utilizing Extron's Simple Instruction Set (SIS™) of basic ASCII code.
 - **Downloadable firmware** – Updated firmware can be conveniently downloaded from the Extron Web site. Changes to features and capabilities can be easily upgraded through the RS-232/RS-422 port.
 - **Executive Mode** – Ideal for unsecured environments, executive mode enables the user to lock out all front panel functions except for centering controls; all other functions remain active through RS-232/RS-422.
 - **Flexible mounting options** – The VSC 900 models are housed in 1U high, half rack width metal enclosures that can be mounted under or through a desk or in a rack.
 - **International internal power supply** – The 100-240VAC, 50/60 Hz, auto-switchable, internal power supply provides worldwide power compatibility.
 - **VSC Remote** – The included Extron VSC Remote provides infrared remote control for the VSC scan converters. It performs most front panel functions such as image freeze, zoom in and out, size and shift both horizontally and vertically, adjust the vertical filters, and set presets.

FEATURES (CONT.)

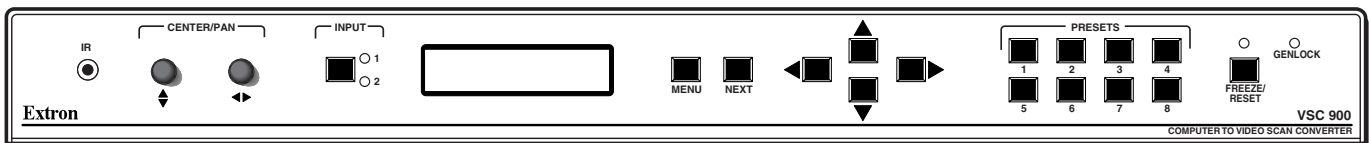


VSC Remote

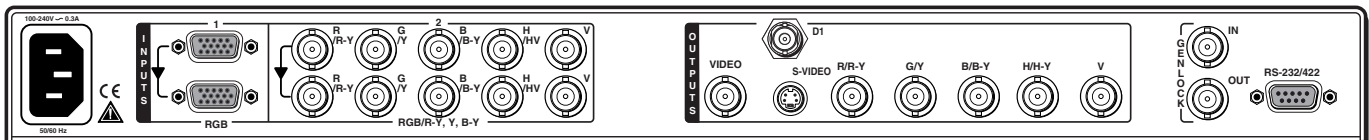
APPLICATION DIAGRAM



PANEL DRAWINGS



VSC 900D Front



VSC 900D Back



Extron Electronics, USA
 1230 South Lewis Street
 Anaheim, CA 92805
 800.633.9876 714.491.1500
 FAX 714.491.1517

Extron Electronics, Europe
 Beeldschermweg 6C
 3821 AH Amersfoort, The Netherlands
 +800.3987.6673 +31.33.453.4040
 FAX +31.33.453.4050

Extron Electronics, Asia
 135 Joo Seng Rd. #04-01
 PM Industrial Bldg., Singapore 368363
 +800.7339.8766 +65.6383.4400
 FAX +65.6383.4664

Extron Electronics, Japan
 Daisan DMJ Bldg. 6F, 3-9-1 Kudan Minami
 Chiyoda-ku, Tokyo 102-0074
 Japan
 +81.3.3511.7655 FAX +81.3.3511.7656

VIDEO INPUT

Number/signal type.....	1 RGBHV, RGBS, RGsB, component video with 1 buffered loop-through; 1 RGBHV, RGBS, RGsB with 1 buffered loop-through
Connectors	2 x 5 BNC female (5 BNCs for RGB/component video input, 5 BNCs for RGB/component video loop-through) (1) 15-pin HD female for RGB input, (1) 15-pin HD female for buffered RGB loop-through(RGB)
Minimum/maximum levels	0V to 2.0V p-p with no offset at unity gain
Impedance	75 ohms
Horizontal frequency	Autoscan 24 kHz to 100 kHz
Vertical frequency	Autoscan 50 Hz to 120 Hz
Resolution range	Autoscan 560 x 384 to 1600 X 1200
Maximum DC offset	2.0V
External sync (genlock)	0.3V to 1.0V p-p

VIDEO PROCESSING

Encoder	10 bit digital
Digital sampling	24 bit, 8 bits per color
Colors	16.8 million
Horizontal filtering	8 levels
Vertical filtering	4 levels
Encoder filtering	4 levels

VIDEO OUTPUT

Number/signal type.....	1 RGBHV, RGBS, RGsB, or component video; 1 SDI component video (VSC 900D only) 1 S-video 1 NTSC/PAL composite video
Connectors	5 BNC female: RGBHV/RGBS/RGsB/component video 1 BNC female: SDI component video (VSC 900D only) 1 4-pin mini DIN female: S-video 1 BNC female: composite video
Minimum/maximum levels	0.0V to 1.0V p-p
Impedance	75 ohms

SYNC

Input type	Autodetect RGBHV, RGBS, RGsB
Output type.....	RGBHV, RGBS, RGsB
Genlock connectors	1 BNC female: genlock input 1 BNC female: genlock output (terminate w/75 ohms if unused)
Standards	NTSC 3.58, PAL
Input level	1.5V to 5.0V p-p
Output level	TTL: 5.0V p-p
Input impedance	600 ohms
Output impedance	75 ohms
Max. input voltage	5.0V p-p
Polarity	Negative

CONTROL/REMOTE — SCAN CONVERTER

Serial control port	RS-232/RS-422, 9-pin female D connector
Baud rate and protocol	9600, 8-bit, 1 stop bit, no parity
Serial control pin configurations	2 = TX, 3 = RX, 5 = GND, 9 = hard-wired IR
IR controller module	VSC Remote
Program control	Extron's control program for Windows® Extron's Simple Instruction Set™ (SIS™)

GENERAL

Power	100VAC to 240VAC, 50/60 Hz, 30 watts, internal, auto-switchable
Temperature/humidity	Storage -40° to +158°F (-40° to +70°C) / 10% to 90%, non-condensing Operating +32° to +122°F (0° to +50°C) / 10% to 90%, non-condensing
Rack mount	Yes, with optional brackets
Enclosure type	Metal
Enclosure dimensions.....	1.75" H x 17.5" W x 9.5" D (1U high, full rack width) 4.4 cm H x 44.5 cm W x 24.1 cm D (Depth excludes connectors and knobs)
Product weight	5.6 lbs (2.5 kg)
Shipping weight	12 lbs (5.45 kg)
Vibration	ISTA/NSTA 1A in carton (International Safe Transit Association)
Listings	UL, CUL
Compliances	CE, FCC Class A, VCCI, AS/NZS, ICES
MTBF.....	30,000 hours
Warranty	3 years parts and labor

Model Part Numbers

VSC 900	60-478-01
VSC 900D	60-478-02
VSC Remote	70-206-01

Included Accessories

VSC IR Remote.....	70-206-01
BNC termination adapter.....	26-300-01
SVHSF (1.83 m).....	26-316-02

Optional Accessories

Under desk mounting kit.....	70-219-01
1U Rack Shelf.....	60-190-01
SVHSM-BNCF Adapter.....	26-353-01
RCA (female), BNC (male) Adapter	10-264-01
S-video cable 6' (1.83 m).....	26-316-02
SDI output card.....	70-065-02